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# 2007 MICHIGAN SPRING TURKEY HUNTER SURVEY

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## ABSTRACT

*A survey of turkey hunters was conducted following the 2007 spring hunting season to determine turkey harvest and hunter participation. In 2007, nearly 97,000 hunters harvested about 39,000 turkeys. Statewide, 40% of hunters harvested a turkey. The 2007 turkey harvest was 1% greater than the 2006 harvest and was the largest harvest in Michigan's history. Although harvest increased, the number of hunters decreased 5%, and their hunting effort decreased 15% between 2006 and 2007. Nearly 66% of the hunters rated their hunting experience as excellent, very good, or good in 2007. About 88% of the hunters reported they experienced no or only minor interference from other hunters.*

## INTRODUCTION

Michigan's spring turkey (*Meleagris gallopavo*) hunting season was based originally on an area and quota system. This system was set up primarily to distribute hunters across geographic areas (management units) and time (hunt periods). As the turkey population has expanded statewide, license types were created that allowed hunters to hunt in multiple management units. The goal of the current system has been to provide hunting opportunities while maintaining acceptable levels of hunter satisfaction (Luukkonen 1998).

In 2007, 80% of the state (48,147 square miles) was open for wild turkey hunting from April 23 through May 31 (Figure 1). Compared to 2006, the area open for turkey hunting was increased by 4%. Hunting was expanded in seven counties (Alger, Baraga, Gogebic, Houghton, Marquette, Ontonagon, and Schoolcraft). The hunting area was divided into 14 management units (Figure 1). Hunting licenses were available on these management units for three types of hunts: (1) quota [limited licenses available] hunts on both public and private lands in a specific management unit, (2)



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quota hunt on private lands in southern Michigan [Hunt 301 in Unit ZZ], and (3) a guaranteed hunt (no quota) that included all units [Hunt 234].

People interested in obtaining a turkey hunting license could enter into a random drawing (lottery) conducted by the Department of Natural Resources or purchase a license for Hunt 234 between January 1 and February 1 without going through the lottery. Each applicant in the lottery could select up to two hunt choices (any combination of quota and unlimited quota hunts). The lottery consisted of two drawings. The first drawing was used to select applicants based on their preferred hunt choice. The second drawing was among applicants who were not successful in the first drawing, and was based on the hunter's second choice for a hunt. Any licenses available after the drawing was completed were made available on a first-come, first-served basis to applicants that were unsuccessful in the drawing. Unsuccessful applicants could purchase one leftover license or a license for Hunt 234. Beginning one week after licenses were available to unsuccessful applicants, all remaining licenses except licenses for Hunt 234 were made available to nonapplicants. Hunters were allowed to purchase one license and take one bearded turkey with the harvest tag issued with their license.

A limited number of licenses were available for quota hunts, and they were valid only in a certain management unit and only during a limited time period (7-25 days). Most quota hunts began before May 5 and lasted for seven days. A private land management unit (Unit ZZ) was created in 2002 that included all private lands in southern Michigan (Figure 1). Hunters who selected Hunt 301 could hunt the first two weeks of the season (April 23-May 6) anywhere on private lands in Unit ZZ. This unit and hunt period was created to provide additional hunting opportunity and increased flexibility for hunters who had difficulty finding time to hunt during shorter quota hunts.

Licenses for Hunt 234 could be used in any management unit. They were valid on public and private lands, except in Unit ZZ where they were only valid on private lands or on Fort Custer military lands. Hunt 234 started later than most quota hunts but lasted for 25 days (May 7-31). An unlimited number of licenses were available for Hunt 234.

The Wildlife Division has the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Harvest surveys are a management tool used by the Wildlife Division to accomplish its statutory responsibility. Estimating harvest, hunting effort, and hunter satisfaction are the primary objectives of this survey.

## **METHODS**

The Wildlife Division provided all hunters the option to report voluntarily information about their turkey hunting activity via the Internet. This option was advertised in the hunting regulation booklet and through a statewide news release. Hunters could report information anytime during the hunting season. Hunters reported whether they hunted, the days spent afield, whether they harvested a turkey, and whether other hunters caused interference during their hunt (none, minor, some irritation, or major problem). Successful hunters were also asked to report where their turkeys were taken (public or private land), date of harvest, and beard length of the harvested bird. Birds with a beard

less than six inches were classified as juveniles (one year old), while birds with longer beards were adults (two years old or greater). Finally, hunters rated their overall hunting experience (excellent, very good, good, fair, or poor).

Following the 2007 spring turkey hunting season, a questionnaire was sent to 21,958 randomly selected people that had purchased a turkey hunting license (resident turkey, senior resident turkey, and nonresident turkey licenses) and had not already voluntarily reported harvest information via the Internet. Hunters receiving the questionnaire were asked to report the same information that was collected from hunters that reported voluntarily on the Internet.

Estimates were calculated using a stratified random sampling design that included 17 strata (Cochran 1977). Hunters were stratified based on the management unit where their license was valid (14 management units). Hunters who purchased a license that could be used in multiple management units (hunts 234 and 301) were treated as separate strata (strata 15 and 16). Moreover, people that had voluntarily reported information about their hunting activity via the Internet were treated as a separate stratum (seventeenth stratum).

A 95% confidence limit (CL) was calculated for each estimate. This CL could be added to and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval was a measure of the precision associated with the estimate and implies the true value would be within this interval 95 times out of 100. Estimates were based on information collected from random samples of hunting license buyers. Thus, these estimates were subject to sampling errors (Cochran 1977). Estimates were not adjusted for possible response or nonresponse biases.

Statistical tests are used routinely to determine the likelihood that differences among estimates are larger than expected by chance alone. The overlap of 95% confidence intervals was used to determine whether estimates differed. Non-overlapping 95% confidence intervals was equivalent to stating the difference between the means was larger than would be expected 995 out of 1,000 times ( $P < 0.005$ ), if the study had been repeated (Payton et al. 2003).

Questionnaires were mailed initially during mid-June 2007, and nonrespondents were mailed up to two follow-up questionnaires. Although 21,958 people were sent the questionnaire, 240 surveys were undeliverable resulting in an adjusted sample size of 21,718. Questionnaires were returned by 15,145 people, yielding a 70% adjusted response rate. In addition, 4,744 people voluntarily reported information about their hunting activity via the Internet before the random sample was selected.

## **RESULTS AND DISCUSSION**

In 2007, licenses were purchased by 121,491 people, a decrease of 4% from 2006 (Table 1). Most of the people buying a license were men (93%), and the average age of the license buyers was 43 years (Figure 2). Nearly 10% (11,679) of the license buyers were younger than 17 years old.

About 80% ( $\pm 1\%$ ) of license buyers hunted turkeys (97,074 hunters). Most of these hunters were men ( $90,566 \pm 851$ ), although nearly 7% ( $\pm 1\%$ ) of the hunters were women ( $6,508 \pm 447$ ). Hunter numbers (Table 2) decreased 5% from 2006. Counties listed in descending order with more than 2,000 hunters afield included Allegan, Kent, Barry, Newaygo, Montcalm, Lapeer, Tuscola, Jackson, Saginaw, Sanilac, and Calhoun (Table 3).

Hunters spent an estimated 417,639 days afield pursuing turkeys ( $4.3 \pm 0.1$  days/hunter), a decrease of 15% from 2006, and harvested approximately 39,168 birds (Figure 3). Counties listed in descending order with hunters taking more than 1,000 turkeys included Newaygo, Montcalm, Allegan, Kent, Jackson, Barry, Tuscola, Lapeer, Saginaw, and Calhoun (Table 3). Hunter success was 40% in 2007, compared to 38% hunter success in 2006. The number of turkeys harvested in 2007 was the largest harvest in Michigan's history. Although the 2007 harvest was 1% higher than the previous record harvest of 38,942 turkeys taken in 2006, the increase was not statistically significant.

About 31% ( $\pm 1\%$ ) of the harvested birds were juvenile males ( $12,165 \pm 624$ ); 67% ( $\pm 1\%$ ) were adult males ( $26,398 \pm 793$ ), and about 1% were bearded females ( $451 \pm 106$ ). Additionally, the age of a small number of harvested birds ( $<1\%$ ) was unknown ( $154 \pm 71$ ) because hunters failed to report a beard length.

Hunting effort and the number of turkeys harvested were generally highest during the earliest hunting periods (Figures 4-7). For turkeys that the harvest date was known, 42% of these birds were taken during the first seven days (April 23-29). Daily hunter success generally was more than 8% during April 23 through May 7. Daily hunter success was about 5-7% for the remainder of May. Hunting effort and harvest generally was greater on the weekends than weekdays, especially on Saturdays.

About 80% of turkey hunters hunted solely on private land; 14% hunted on public land only; and 5% hunted on both private and public lands (Table 4). Of the 39,168 turkeys harvested in 2007,  $89 \pm 1\%$  were taken on private land ( $34,723 \pm 866$  birds). About  $11 \pm 1\%$  of the harvest ( $4,421 \pm 443$  birds) was taken on public land.

Hunter satisfaction is one measure used to assess the turkey management program in Michigan. Of the estimated 97,074 people hunting turkeys in 2007,  $66 \pm 1\%$  of the hunters rated their hunting experience as either excellent ( $17,691 \pm 675$  hunters), very good ( $19,866 \pm 733$ ), or good ( $26,419 \pm 833$ ) (Table 5). Nearly  $19 \pm 1\%$  of the hunters rated their experience as fair ( $18,664 \pm 739$  hunters). Only  $13 \pm 1\%$  of the hunters rated their experience as poor ( $12,189 \pm 613$  hunters). About 2% of the hunters ( $2,245 \pm 287$  hunters) failed to rate their hunting experience.

Hunter satisfaction is affected by many factors such as hunting success and whether hunting activities were completed without interference (Luukkonen 1998). In 2007,  $66 \pm 1\%$  of the hunters reported no hunter interference;  $22 \pm 1\%$  reported minor interference;  $8 \pm 1\%$  reported some irritation caused by hunter interference; and  $2 \pm 1\%$  reported hunter interference was a major problem (Table 6).

Although interference can affect hunter satisfaction, hunter satisfaction was more closely associated with hunter success (Figures 8 and 9). Hunter success was greater than 30% in all hunt periods, and hunter success and satisfaction varied little among the hunt periods (Table 7).

Compared to 2006, the number of hunters and hunter effort increased significantly in the Upper Peninsula but declined significantly in the Lower Peninsula (LP) (Table 8). Hunter success and hunter satisfaction was unchanged in all regions except the southern LP which experienced improved hunting success and improved hunter satisfaction between 2006 and 2007 (Table 9).

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Table 1. Number of hunting licenses available and people applying for licenses during the 2007 Michigan spring turkey hunting season.

| Management unit or hunt period | Licenses available (quota) | Number of eligible applicants <sup>a</sup> | Number of applicants successful in drawing <sup>b</sup> | Number of licenses remaining after drawing | Number of licenses purchased by successful applicants <sup>c</sup> | Number of leftover licenses purchased by unsuccessful applicants <sup>c</sup> | Number of licenses purchased by people not in the drawing <sup>c</sup> | Number of licensees <sup>c</sup> |
|--------------------------------|----------------------------|--|---|--|--|---|--|----------------------------------|
| A                              | 2,500                      | 2,019                                      | 2,067   | 433  | 1,540  | 12  | 353  | 1,905                            |
| AA                             | 1,400                      | 963  | 950   | 450  | 710  | 18  | 196  | 924                              |
| B                              | 2,200                      | 1,826                                      | 1,885   | 315  | 1,397  | 47  | 239  | 1,683                            |
| E                              | 1,700                      | 3,049                                      | 1,699   | 1  | 1,285  | 0   | 0  | 1,285                            |
| F                              | 5,000                      | 6,818                                      | 5,002   | 0  | 3,674  | 0   | 0  | 3,674                            |
| J                              | 4,000                      | 3,265                                      | 3,133   | 867  | 2,315  | 56  | 706  | 3,077                            |
| K                              | 8,500                      | 14,934                                     | 8,497   | 3  | 6,626  | 0   | 0  | 6,626                            |
| M                              | 12,000                     | 4,485                                      | 4,503   | 7,497                                      | 3,481  | 26  | 2,083  | 5,590                            |
| ZA                             | 4,800                      | 4,488                                      | 3,387   | 1,413                                      | 2,451  | 181   | 1,071  | 3,703                            |
| ZB                             | 1,750                      | 1,987                                      | 1,281   | 469  | 942  | 111   | 296  | 1,349                            |
| ZC                             | 1,950                      | 2,463                                      | 1,457   | 493  | 1,029  | 161   | 257  | 1,447                            |
| ZD                             | 40                         | 101  | 40  | 0  | 23   | 0   | 0  | 23                               |
| ZE                             | 2,000                      | 3,458                                      | 1,819   | 181  | 1,266  | 150   | 8  | 1,424                            |
| ZF                             | 5,600                      | 4,332                                      | 3,990   | 1,610                                      | 3,079  | 52  | 1,396  | 4,527                            |
| Hunt 301                       | 65,000                     | 24,348                                     | 25,168  | 39,832                                     | 20,456   | 1,097   | 14,082   | 35,635                           |
| Hunt 234                       | NA                         | 1,385                                      | 2,744   | NA   | 2,089  | 3,636   | 42,894 <sup>d</sup>  | 48,619                           |
| Statewide                      | 118,440                    | 79,921                                     | 67,622  | 53,564                                     | 52,363   | 5,547   | 63,581   | 121,491                          |

<sup>a</sup>Number of eligible applicants selecting the management unit as their first choice to hunt.

<sup>b</sup>Number of successful applicants was sometimes larger than quota because of system processing errors.

<sup>c</sup>If a licensee purchased more than one license, only the latest purchase is included in the summary of licenses purchased.

<sup>d</sup>Licenses sold between January 1 and February 1.

Table 2. Number of hunters, hunting efforts, harvest, hunter success, hunter satisfaction, and hunter interference during the spring 2007 Michigan turkey hunting season.

| Management unit  | Hunters <sup>a</sup> |        | Hunting efforts (days) <sup>a</sup> |        | Harvest <sup>a</sup> |        | Hunter success |        | Hunter satisfaction <sup>b</sup> |        | Noninterfered hunters <sup>c</sup> |        |
|--|----------------------|--------|-------------------------------------|--------|----------------------|--------|----------------|--------|----------------------------------|--------|------------------------------------|--------|
|  | Total                | 95% CL | Total                               | 95% CL | Total                | 95% CL | %              | 95% CL | %                                | 95% CL | %                                  | 95% CL |
| Hunt periods with quotas (General limited quota hunt periods)                          |                      |        |                                     |        |                      |        |                |        |                                  |        |                                    |        |
| A  | 1,535                | 95     | 5,718                               | 645    | 653                  | 111    | 43             | 7      | 70                               | 6      | 87                                 | 5      |
| AA   | 761                  | 45     | 2,949                               | 283    | 138                  | 41     | 18             | 5      | 42                               | 7      | 86                                 | 5      |
| B  | 1,450                | 73     | 5,240                               | 496    | 427                  | 90     | 29             | 6      | 60                               | 7      | 90                                 | 4      |
| E  | 1,161                | 44     | 3,652                               | 270    | 382                  | 67     | 33             | 6      | 61                               | 6      | 89                                 | 4      |
| F  | 3,208                | 148    | 11,501                              | 880    | 771                  | 174    | 24             | 5      | 57                               | 6      | 88                                 | 4      |
| J  | 2,685                | 128    | 8,784                               | 728    | 915                  | 171    | 34             | 6      | 61                               | 6      | 88                                 | 4      |
| K  | 6,140                | 201    | 19,575                              | 1,528  | 2,694                | 370    | 44             | 6      | 63                               | 6      | 87                                 | 4      |
| M  | 4,426                | 301    | 22,333                              | 3,160  | 1,771                | 339    | 40             | 7      | 62                               | 7      | 89                                 | 5      |
| ZA   | 2,701                | 208    | 9,976                               | 1,220  | 965                  | 201    | 36             | 7      | 70                               | 7      | 86                                 | 5      |
| ZB   | 1,178                | 58     | 3,794                               | 436    | 390                  | 78     | 33             | 6      | 60                               | 7      | 89                                 | 4      |
| ZC   | 1,243                | 70     | 4,584                               | 526    | 375                  | 87     | 30             | 7      | 60                               | 7      | 81                                 | 6      |
| ZD   | 16                   | 2      | 52                                  | 11     | 5                    | 1      | 29             | 9      | 53                               | 12     | 61                                 | 11     |
| ZE   | 1,184                | 69     | 4,572                               | 531    | 449                  | 84     | 38             | 7      | 67                               | 7      | 83                                 | 5      |
| ZF   | 3,710                | 239    | 16,703                              | 2,074  | 1,371                | 281    | 37             | 7      | 63                               | 7      | 77                                 | 6      |
| Subtotal   | 31,397               | 548    | 119,431                             | 4,580  | 11,304               | 692    | 36             | 2      | 62                               | 2      | 86                                 | 2      |
| Hunt period 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2007) |                      |        |                                     |        |                      |        |                |        |                                  |        |                                    |        |
| ZA   | 8,644                | 340    | 33,180                              | 1,720  | 4,101                | 251    | 47             | 2      | 75                               | 2      | 90                                 | 1      |
| ZB   | 3,269                | 229    | 12,456                              | 1,111  | 1,516                | 159    | 46             | 4      | 69                               | 3      | 87                                 | 2      |
| ZC   | 3,695                | 240    | 14,544                              | 1,212  | 1,681                | 166    | 46             | 3      | 76                               | 3      | 88                                 | 2      |
| ZD   | 149                  | 51     | 522                                 | 202    | 19                   | 18     | 13             | 11     | 61                               | 17     | 88                                 | 11     |
| ZE   | 7,709                | 326    | 29,957                              | 1,675  | 3,601                | 237    | 47             | 2      | 75                               | 2      | 87                                 | 2      |

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one unit for hunts 234 and 301. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 2 (continued). Number of hunters, hunting efforts, harvest, hunter success, hunter satisfaction, and hunter interference during the spring 2007 Michigan turkey hunting season.

| Management unit  | Hunters <sup>a</sup> |        | Hunting efforts (days) <sup>a</sup> |        | Harvest <sup>a</sup> |        | Hunter success |        | Hunter satisfaction <sup>b</sup> |        | Noninterfered hunters <sup>c</sup> |        |
|--|----------------------|--------|-------------------------------------|--------|----------------------|--------|----------------|--------|----------------------------------|--------|------------------------------------|--------|
|  | Total                | 95% CL | Total                               | 95% CL | Total                | 95% CL | %              | 95% CL | %                                | 95% CL | %                                  | 95% CL |
| Hunt period 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2007) |                      |        |                                     |        |                      |        |                |        |                                  |        |                                    |        |
| ZF   | 7,193                | 319    | 28,674                              | 1,656  | 3,402                | 232    | 47             | 2      | 73                               | 2      | 87                                 | 2      |
| Unknown  | 400                  | 84     | 1,227                               | 325    | 77                   | 37     | 19             | 8      | 63                               | 10     | 87                                 | 7      |
| Subtotal   | 30,507               | 281    | 120,559                             | 2,431  | 14,397               | 388    | 47             | 1      | 74                               | 1      | 88                                 | 1      |
| Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2007)                      |                      |        |                                     |        |                      |        |                |        |                                  |        |                                    |        |
| A  | 389                  | 93     | 1,872                               | 563    | 81                   | 41     | 21             | 9      | 49                               | 12     | 94                                 | 6      |
| AA   | 284                  | 80     | 1,234                               | 454    | 48                   | 32     | 17             | 10     | 50                               | 14     | 99                                 | 0      |
| B  | 358                  | 89     | 1,477                               | 421    | 92                   | 45     | 26             | 11     | 41                               | 12     | 90                                 | 8      |
| E  | 2,043                | 210    | 9,099                               | 1,291  | 697                  | 125    | 34             | 5      | 56                               | 5      | 90                                 | 3      |
| F  | 2,324                | 222    | 11,102                              | 1,421  | 464                  | 99     | 20             | 4      | 43                               | 5      | 88                                 | 3      |
| J  | 1,400                | 174    | 6,404                               | 1,067  | 411                  | 95     | 29             | 6      | 51                               | 6      | 94                                 | 3      |
| K  | 8,450                | 397    | 39,456                              | 2,585  | 3,138                | 256    | 37             | 2      | 60                               | 3      | 88                                 | 2      |
| M  | 666                  | 121    | 2,990                               | 700    | 242                  | 72     | 36             | 9      | 63                               | 9      | 96                                 | 4      |
| ZA   | 6,849                | 367    | 35,074                              | 2,656  | 2,744                | 242    | 40             | 3      | 66                               | 3      | 90                                 | 2      |
| ZB   | 1,896                | 205    | 8,467                               | 1,264  | 771                  | 132    | 41             | 5      | 67                               | 5      | 89                                 | 3      |
| ZC   | 2,594                | 236    | 12,601                              | 1,541  | 890                  | 140    | 34             | 4      | 66                               | 4      | 88                                 | 3      |
| ZD   | 106                  | 49     | 634                                 | 375    | 41                   | 29     | 38             | 22     | 65                               | 22     | 93                                 | 12     |
| ZE   | 4,723                | 312    | 20,973                              | 1,922  | 1,934                | 204    | 41             | 3      | 71                               | 3      | 92                                 | 2      |
| ZF   | 4,822                | 315    | 23,980                              | 2,171  | 1,882                | 202    | 39             | 3      | 68                               | 3      | 87                                 | 2      |
| Unknown  | 477                  | 101    | 2,285                               | 702    | 33                   | 26     | 7              | 5      | 31                               | 10     | 89                                 | 7      |
| Subtotal   | 35,170               | 474    | 177,648                             | 4,659  | 13,467               | 469    | 38             | 1      | 62                               | 1      | 89                                 | 1      |
| Statewide  | 97,074               | 778    | 417,639                             | 6,971  | 39,168               | 921    | 40             | 1      | 66                               | 1      | 88                                 | 1      |

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one unit for hunts 234 and 301. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.



Table 3. Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2007 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

| County                | Hunters <sup>a</sup> |     | Hunting efforts (days) <sup>a</sup> |       | Harvest <sup>a</sup> |     | Hunter success |    | Hunter satisfaction <sup>b</sup> |    | Noninterfered hunters <sup>c</sup> |    |
|-----------------------|----------------------|-----|-------------------------------------|-------|----------------------|-----|----------------|----|----------------------------------|----|------------------------------------|----|
|                       | 95%                  |     | 95%                                 |       | 95%                  |     | 95%            |    | 95%                              |    | 95%                                |    |
|                       | Total                | CL  | Total                               | CL    | Total                | CL  | %              | CL | %                                | CL | %                                  | CL |
| Alcona                | 1,982                | 199 | 7,560                               | 958   | 471                  | 111 | 24             | 5  | 58                               | 6  | 90                                 | 4  |
| Alger                 | 346                  | 170 | 1,707                               | 1,259 | 98                   | 91  | 28             | 23 | 74                               | 22 | 100                                | 0  |
| Allegan               | 3,247                | 330 | 13,290                              | 1,782 | 1,225                | 201 | 38             | 5  | 68                               | 5  | 80                                 | 5  |
| Alpena                | 1,064                | 148 | 4,252                               | 797   | 466                  | 105 | 44             | 8  | 66                               | 7  | 92                                 | 5  |
| Antrim                | 1,112                | 185 | 3,849                               | 746   | 333                  | 108 | 30             | 8  | 63                               | 9  | 86                                 | 7  |
| Arenac                | 743                  | 121 | 2,714                               | 578   | 266                  | 72  | 36             | 8  | 53                               | 8  | 85                                 | 6  |
| Baraga                | 0                    | 0   | 0                                   | 0     | 0                    | 0   | 0              | 0  | 0                                | 0  | 0                                  | 0  |
| Barry                 | 3,004                | 323 | 12,495                              | 1,771 | 1,176                | 192 | 39             | 5  | 67                               | 6  | 85                                 | 5  |
| Bay                   | 446                  | 102 | 1,812                               | 609   | 193                  | 67  | 43             | 11 | 72                               | 10 | 92                                 | 6  |
| Benzie                | 580                  | 175 | 2,050                               | 654   | 108                  | 62  | 19             | 10 | 59                               | 15 | 90                                 | 9  |
| Berrien               | 944                  | 173 | 3,930                               | 894   | 347                  | 98  | 37             | 9  | 61                               | 9  | 83                                 | 7  |
| Branch                | 1,253                | 155 | 4,941                               | 767   | 536                  | 101 | 43             | 6  | 70                               | 6  | 87                                 | 4  |
| Calhoun               | 2,207                | 207 | 8,251                               | 1,034 | 1,019                | 141 | 46             | 5  | 73                               | 4  | 88                                 | 3  |
| Cass                  | 1,281                | 208 | 6,529                               | 1,614 | 475                  | 138 | 37             | 8  | 69                               | 7  | 88                                 | 5  |
| Charlevoix            | 660                  | 149 | 2,095                               | 579   | 281                  | 101 | 43             | 12 | 61                               | 12 | 87                                 | 9  |
| Cheboygan             | 897                  | 171 | 3,313                               | 699   | 263                  | 100 | 29             | 10 | 51                               | 10 | 89                                 | 6  |
| Chippewa <sup>d</sup> | 0                    | 0   | 0                                   | 0     | 0                    | 0   | 0              | 0  | 0                                | 0  | 0                                  | 0  |
| Clare                 | 1,333                | 159 | 5,205                               | 863   | 440                  | 94  | 33             | 6  | 63                               | 6  | 93                                 | 3  |
| Clinton               | 1,526                | 188 | 6,481                               | 992   | 597                  | 113 | 39             | 6  | 70                               | 6  | 84                                 | 4  |
| Crawford              | 676                  | 147 | 2,843                               | 743   | 137                  | 63  | 20             | 9  | 45                               | 11 | 88                                 | 7  |
| Delta                 | 1,671                | 331 | 7,092                               | 1,941 | 600                  | 218 | 36             | 11 | 59                               | 11 | 96                                 | 4  |

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

<sup>d</sup>Not open for turkey hunting.

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2007 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

| County                | Hunters <sup>a</sup> |        | Hunting efforts (days) <sup>a</sup> |        | Harvest <sup>a</sup> |        | Hunter success |        | Hunter satisfaction <sup>b</sup> |        | Noninterfered hunters <sup>c</sup> |        |
|-----------------------|----------------------|--------|-------------------------------------|--------|----------------------|--------|----------------|--------|----------------------------------|--------|------------------------------------|--------|
|                       | Total                | 95% CL | Total                               | 95% CL | Total                | 95% CL | %              | 95% CL | %                                | 95% CL | %                                  | 95% CL |
| Dickinson             | 813                  | 245    | 3,866                               | 1,686  | 323                  | 162    | 40             | 16     | 67                               | 15     | 88                                 | 11     |
| Eaton                 | 1,625                | 178    | 6,607                               | 960    | 722                  | 117    | 44             | 5      | 75                               | 5      | 94                                 | 3      |
| Emmet                 | 590                  | 140    | 1,810                               | 497    | 239                  | 94     | 40             | 12     | 61                               | 12     | 94                                 | 6      |
| Genesee               | 1,587                | 178    | 6,306                               | 911    | 592                  | 107    | 37             | 5      | 74                               | 5      | 83                                 | 4      |
| Gladwin               | 1,070                | 139    | 4,447                               | 824    | 357                  | 84     | 33             | 7      | 57                               | 7      | 89                                 | 4      |
| Gogebic               | 0                    | 0      | 0                                   | 0      | 0                    | 0      | 0              | 0      | 0                                | 0      | 0                                  | 0      |
| Gd. Traverse          | 923                  | 215    | 3,809                               | 951    | 280                  | 119    | 30             | 11     | 59                               | 12     | 82                                 | 8      |
| Gratiot               | 1,610                | 212    | 6,626                               | 1,155  | 719                  | 143    | 45             | 7      | 72                               | 6      | 86                                 | 6      |
| Hillsdale             | 1,472                | 166    | 5,470                               | 802    | 593                  | 105    | 40             | 6      | 71                               | 5      | 86                                 | 4      |
| Houghton              | 7                    | 13     | 36                                  | 65     | 0                    | 0      | 0              | 0      | 0                                | 0      | 100                                | 0      |
| Huron                 | 1,359                | 162    | 5,992                               | 968    | 528                  | 101    | 39             | 6      | 63                               | 6      | 89                                 | 4      |
| Ingham                | 1,509                | 171    | 5,772                               | 877    | 606                  | 108    | 40             | 6      | 76                               | 5      | 85                                 | 4      |
| Ionia                 | 1,815                | 212    | 7,406                               | 1,167  | 821                  | 139    | 45             | 6      | 76                               | 5      | 95                                 | 3      |
| Iosco                 | 1,327                | 209    | 5,823                               | 1,071  | 318                  | 112    | 24             | 7      | 51                               | 9      | 86                                 | 6      |
| Iron                  | 683                  | 233    | 3,070                               | 1,283  | 271                  | 154    | 40             | 18     | 60                               | 18     | 83                                 | 14     |
| Isabella              | 1,747                | 196    | 6,972                               | 979    | 709                  | 118    | 41             | 5      | 68                               | 5      | 92                                 | 4      |
| Jackson               | 2,767                | 227    | 10,711                              | 1,210  | 1,189                | 150    | 43             | 4      | 73                               | 4      | 89                                 | 3      |
| Kalamazoo             | 1,613                | 233    | 6,299                               | 1,094  | 603                  | 138    | 37             | 7      | 69                               | 7      | 83                                 | 6      |
| Kalkaska              | 778                  | 198    | 2,942                               | 799    | 286                  | 127    | 37             | 13     | 51                               | 13     | 87                                 | 9      |
| Kent                  | 3,080                | 268    | 12,578                              | 1,478  | 1,212                | 165    | 39             | 4      | 73                               | 4      | 89                                 | 3      |
| Keweenaw <sup>d</sup> | 0                    | 0      | 0                                   | 0      | 0                    | 0      | 0              | 0      | 0                                | 0      | 0                                  | 0      |

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

<sup>d</sup>Not open for turkey hunting.

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2007 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

| County                | Hunters <sup>a</sup> |        | Hunting efforts (days) <sup>a</sup> |        | Harvest <sup>a</sup> |        | Hunter success |        | Hunter satisfaction <sup>b</sup> |        | Noninterfered hunters <sup>c</sup> |        |
|-----------------------|----------------------|--------|-------------------------------------|--------|----------------------|--------|----------------|--------|----------------------------------|--------|------------------------------------|--------|
|                       | Total                | 95% CL | Total                               | 95% CL | Total                | 95% CL | %              | 95% CL | %                                | 95% CL | %                                  | 95% CL |
| Lake                  | 1,560                | 272    | 5,398                               | 1,039  | 328                  | 110    | 21             | 7      | 52                               | 9      | 86                                 | 6      |
| Lapeer                | 2,843                | 232    | 11,164                              | 1,248  | 1,162                | 151    | 41             | 4      | 70                               | 4      | 88                                 | 3      |
| Leelanau              | 391                  | 147    | 1,158                               | 517    | 173                  | 102    | 44             | 19     | 71                               | 15     | 89                                 | 12     |
| Lenawee               | 984                  | 138    | 4,484                               | 781    | 322                  | 79     | 33             | 7      | 62                               | 7      | 81                                 | 6      |
| Livingston            | 1,430                | 167    | 5,318                               | 836    | 578                  | 105    | 40             | 6      | 78                               | 5      | 89                                 | 4      |
| Luce <sup>d</sup>     | 0                    | 0      | 0                                   | 0      | 0                    | 0      | 0              | 0      | 0                                | 0      | 0                                  | 0      |
| Mackinac <sup>d</sup> | 0                    | 0      | 0                                   | 0      | 0                    | 0      | 0              | 0      | 0                                | 0      | 0                                  | 0      |
| Macomb                | 423                  | 92     | 1,749                               | 465    | 132                  | 50     | 31             | 10     | 72                               | 10     | 89                                 | 7      |
| Manistee              | 1,058                | 216    | 3,490                               | 759    | 420                  | 149    | 40             | 11     | 62                               | 10     | 85                                 | 8      |
| Marquette             | 365                  | 171    | 1,530                               | 979    | 43                   | 53     | 12             | 14     | 25                               | 19     | 85                                 | 18     |
| Mason                 | 1,046                | 212    | 4,322                               | 948    | 399                  | 137    | 38             | 10     | 61                               | 10     | 90                                 | 7      |
| Mecosta               | 1,509                | 245    | 6,676                               | 1,271  | 682                  | 177    | 45             | 8      | 69                               | 7      | 90                                 | 5      |
| Menominee             | 1,331                | 302    | 6,323                               | 1,891  | 640                  | 220    | 48             | 13     | 65                               | 12     | 87                                 | 9      |
| Midland               | 1,529                | 201    | 6,139                               | 990    | 559                  | 115    | 37             | 6      | 64                               | 7      | 92                                 | 3      |
| Missaukee             | 808                  | 192    | 3,085                               | 813    | 259                  | 117    | 32             | 12     | 49                               | 12     | 90                                 | 5      |
| Monroe                | 239                  | 67     | 1,133                               | 423    | 63                   | 34     | 26             | 12     | 65                               | 13     | 87                                 | 9      |
| Montcalm              | 2,871                | 258    | 12,283                              | 1,458  | 1,230                | 176    | 43             | 5      | 71                               | 4      | 91                                 | 3      |
| Montmorency           | 1,228                | 113    | 4,768                               | 582    | 232                  | 62     | 19             | 5      | 48                               | 6      | 89                                 | 4      |
| Muskegon              | 1,654                | 221    | 7,330                               | 1,314  | 674                  | 137    | 41             | 7      | 72                               | 6      | 83                                 | 5      |
| Newaygo               | 2,925                | 340    | 11,084                              | 1,552  | 1,235                | 235    | 42             | 6      | 67                               | 6      | 90                                 | 4      |
| Oakland               | 991                  | 139    | 3,439                               | 600    | 374                  | 87     | 38             | 7      | 65                               | 7      | 88                                 | 5      |

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

<sup>d</sup>Not open for turkey hunting.

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2007 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

| County       | Hunters <sup>a</sup> |        | Hunting efforts (days) <sup>a</sup> |        | Harvest <sup>a</sup> |        | Hunter success |        | Hunter satisfaction <sup>b</sup> |        | Noninterfered hunters <sup>c</sup> |        |
|--------------|----------------------|--------|-------------------------------------|--------|----------------------|--------|----------------|--------|----------------------------------|--------|------------------------------------|--------|
|              | Total                | 95% CL | Total                               | 95% CL | Total                | 95% CL | %              | 95% CL | %                                | 95% CL | %                                  | 95% CL |
| Oceana       | 1,632                | 278    | 6,175                               | 1,203  | 688                  | 186    | 42             | 9      | 65                               | 9      | 81                                 | 7      |
| Ogemaw       | 1,020                | 185    | 3,750                               | 779    | 294                  | 105    | 29             | 9      | 48                               | 10     | 86                                 | 7      |
| Ontonagon    | 0                    | 0      | 0                                   | 0      | 0                    | 0      | 0              | 0      | 0                                | 0      | 0                                  | 0      |
| Osceola      | 992                  | 218    | 3,351                               | 868    | 500                  | 173    | 50             | 11     | 67                               | 10     | 95                                 | 3      |
| Oscoda       | 1,156                | 194    | 4,217                               | 849    | 196                  | 82     | 17             | 7      | 45                               | 9      | 89                                 | 5      |
| Otsego       | 916                  | 170    | 3,631                               | 816    | 208                  | 86     | 23             | 8      | 54                               | 10     | 94                                 | 5      |
| Ottawa       | 1,876                | 216    | 7,174                               | 1,043  | 759                  | 132    | 40             | 6      | 68                               | 6      | 86                                 | 4      |
| Presque Isle | 939                  | 129    | 3,699                               | 660    | 353                  | 91     | 38             | 8      | 67                               | 8      | 86                                 | 6      |
| Roscommon    | 1,034                | 181    | 3,669                               | 762    | 179                  | 80     | 17             | 7      | 55                               | 9      | 85                                 | 7      |
| Saginaw      | 2,600                | 254    | 10,150                              | 1,269  | 1,085                | 159    | 42             | 5      | 69                               | 5      | 89                                 | 3      |
| St. Clair    | 1,842                | 191    | 8,522                               | 1,157  | 678                  | 115    | 37             | 5      | 68                               | 5      | 88                                 | 3      |
| St. Joseph   | 989                  | 172    | 4,120                               | 891    | 449                  | 121    | 45             | 9      | 64                               | 9      | 89                                 | 6      |
| Sanilac      | 2,225                | 202    | 8,291                               | 977    | 942                  | 133    | 42             | 5      | 69                               | 4      | 86                                 | 3      |
| Schoolcraft  | 104                  | 81     | 505                                 | 545    | 34                   | 53     | 33             | 40     | 72                               | 27     | 100                                | 0      |
| Shiawassee   | 1,548                | 193    | 6,327                               | 1,015  | 606                  | 118    | 39             | 6      | 70                               | 6      | 85                                 | 5      |
| Tuscola      | 2,780                | 222    | 9,964                               | 1,111  | 1,171                | 150    | 42             | 4      | 69                               | 4      | 88                                 | 3      |
| Van Buren    | 1,699                | 221    | 6,661                               | 1,048  | 892                  | 174    | 52             | 7      | 80                               | 5      | 89                                 | 5      |
| Washtenaw    | 901                  | 130    | 3,488                               | 723    | 377                  | 85     | 42             | 7      | 76                               | 6      | 85                                 | 6      |
| Wayne        | 30                   | 23     | 71                                  | 56     | 0                    | 0      | 0              | 0      | 42                               | 38     | 96                                 | 5      |
| Wexford      | 1,385                | 262    | 4,835                               | 1,220  | 463                  | 162    | 33             | 10     | 53                               | 10     | 85                                 | 8      |
| Unknown      | 2,637                | 305    | 11,218                              | 2,001  | 387                  | 105    | 14             | 4      | 52                               | 6      | 89                                 | 3      |

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

<sup>d</sup>Not open for turkey hunting.

Table 4. Estimated number and proportion of hunters hunting on private and public lands during the spring 2007 Michigan turkey hunting season.<sup>a</sup>

| Management unit   | Private land only |        |     |        | Public land only |        |    |        | Both private and public lands |        |    |        | Unknown land |        |   |        |
|---|-------------------|--------|-----|--------|------------------|--------|----|--------|-------------------------------|--------|----|--------|--------------|--------|---|--------|
|   | Total             | 95% CL | %   | 95% CL | Total            | 95% CL | %  | 95% CL | Total                         | 95% CL | %  | 95% CL | Total        | 95% CL | % | 95% CL |
| Hunt periods with quotas (General limited quota hunt periods)                   |                   |        |     |        |                  |        |    |        |                               |        |    |        |              |        |   |        |
| A   | 1,192             | 114    | 78  | 6      | 195              | 69     | 13 | 4      | 140                           | 62     | 9  | 4      | 9            | 17     | 1 | 1      |
| AA  | 344               | 56     | 45  | 7      | 355              | 56     | 47 | 7      | 52                            | 27     | 7  | 4      | 10           | 12     | 1 | 2      |
| B   | 1,196             | 96     | 82  | 5      | 194              | 67     | 13 | 5      | 60                            | 39     | 4  | 3      | 0            | 0      | 0 | 0      |
| E   | 827               | 71     | 71  | 5      | 238              | 57     | 21 | 5      | 90                            | 38     | 8  | 3      | 6            | 10     | 0 | 1      |
| F   | 1,034             | 194    | 32  | 6      | 1,851            | 217    | 58 | 6      | 277                           | 115    | 9  | 4      | 46           | 50     | 1 | 2      |
| J   | 1,485             | 189    | 55  | 7      | 822              | 166    | 31 | 6      | 336                           | 118    | 13 | 4      | 41           | 45     | 2 | 2      |
| K   | 3,733             | 375    | 61  | 6      | 1,765            | 332    | 29 | 5      | 642                           | 223    | 10 | 4      | 0            | 0      | 0 | 0      |
| M   | 3,069             | 366    | 69  | 7      | 801              | 254    | 18 | 6      | 502                           | 210    | 11 | 5      | 54           | 73     | 1 | 2      |
| ZA  | 1,503             | 227    | 56  | 7      | 974              | 201    | 36 | 7      | 225                           | 110    | 8  | 4      | 0            | 0      | 0 | 0      |
| ZB  | 617               | 87     | 52  | 7      | 515              | 84     | 44 | 7      | 46                            | 31     | 4  | 3      | 0            | 0      | 0 | 0      |
| ZC  | 664               | 99     | 53  | 7      | 500              | 94     | 40 | 7      | 80                            | 45     | 6  | 4      | 0            | 0      | 0 | 0      |
| ZD  | 5                 | 2      | 31  | 11     | 11               | 2      | 69 | 11     | 0                             | 0      | 0  | 0      | 0            | 0      | 0 | 0      |
| ZE  | 513               | 88     | 43  | 7      | 613              | 90     | 52 | 7      | 50                            | 33     | 4  | 3      | 7            | 14     | 1 | 1      |
| ZF  | 1,844             | 302    | 50  | 7      | 1,410            | 284    | 38 | 7      | 455                           | 185    | 12 | 5      | 0            | 0      | 0 | 0      |
| Subtotal  | 18,026            | 738    | 57  | 2      | 10,243           | 640    | 33 | 2      | 2,954                         | 423    | 9  | 1      | 173          | 103    | 1 | 0      |
| Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2007) |                   |        |     |        |                  |        |    |        |                               |        |    |        |              |        |   |        |
| ZA  | 8,644             | 340    | 100 | 0      | 0                | 0      | 0  | 0      | 0                             | 0      | 0  | 0      | 0            | 0      | 0 | 0      |
| ZB  | 3,269             | 229    | 100 | 0      | 0                | 0      | 0  | 0      | 0                             | 0      | 0  | 0      | 0            | 0      | 0 | 0      |
| ZC  | 3,695             | 240    | 100 | 0      | 0                | 0      | 0  | 0      | 0                             | 0      | 0  | 0      | 0            | 0      | 0 | 0      |
| ZD  | 149               | 51     | 100 | 0      | 0                | 0      | 0  | 0      | 0                             | 0      | 0  | 0      | 0            | 0      | 0 | 0      |
| ZE  | 7,709             | 326    | 100 | 0      | 0                | 0      | 0  | 0      | 0                             | 0      | 0  | 0      | 0            | 0      | 0 | 0      |

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 4 (continued). Estimated number and proportion of hunters hunting on private and public lands during the spring 2007 Michigan turkey hunting season.<sup>a</sup>

| Management unit   | Private land only |        |       |        | Public land only |        |       |        | Both private and public lands |        |       |        | Unknown land |        |       |        |
|---|-------------------|--------|-------|--------|------------------|--------|-------|--------|-------------------------------|--------|-------|--------|--------------|--------|-------|--------|
|   | Total             | 95% CL | 95% % | 95% CL | Total            | 95% CL | 95% % | 95% CL | Total                         | 95% CL | 95% % | 95% CL | Total        | 95% CL | 95% % | 95% CL |
| Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2007) |                   |        |       |        |                  |        |       |        |                               |        |       |        |              |        |       |        |
| ZF  | 7,193             | 319    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| Unknown   | 400               | 84     | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| Subtotal  | 30,507            | 281    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2007)               |                   |        |       |        |                  |        |       |        |                               |        |       |        |              |        |       |        |
| A   | 313               | 83     | 81    | 9      | 68               | 39     | 18    | 9      | 7                             | 13     | 2     | 3      | 0            | 0      | 0     | 0      |
| AA  | 139               | 57     | 49    | 14     | 121              | 52     | 43    | 14     | 23                            | 23     | 8     | 8      | 0            | 0      | 0     | 0      |
| B   | 305               | 82     | 85    | 9      | 44               | 32     | 12    | 8      | 9                             | 13     | 3     | 4      | 0            | 0      | 0     | 0      |
| E   | 1,470             | 180    | 72    | 5      | 421              | 97     | 21    | 4      | 145                           | 57     | 7     | 3      | 7            | 13     | 0     | 1      |
| F   | 975               | 146    | 42    | 5      | 1,034            | 150    | 44    | 5      | 294                           | 81     | 13    | 3      | 21           | 23     | 1     | 1      |
| J   | 839               | 136    | 60    | 6      | 400              | 93     | 29    | 6      | 153                           | 58     | 11    | 4      | 0            | 0      | 0     | 0      |
| K   | 5,623             | 335    | 67    | 2      | 2,039            | 210    | 24    | 2      | 760                           | 130    | 9     | 1      | 29           | 26     | 0     | 0      |
| M   | 445               | 99     | 67    | 9      | 131              | 54     | 20    | 7      | 83                            | 43     | 12    | 6      | 7            | 13     | 1     | 2      |
| ZA <sup>b</sup>   | 6,849             | 367    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| ZB <sup>b</sup>   | 1,896             | 205    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| ZC <sup>b</sup>   | 2,594             | 236    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| ZD <sup>b</sup>   | 106               | 49     | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| ZE <sup>b</sup>   | 4,723             | 312    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| ZF <sup>b</sup>   | 4,822             | 315    | 100   | 0      | 0                | 0      | 0     | 0      | 0                             | 0      | 0     | 0      | 0            | 0      | 0     | 0      |
| Unknown   | 334               | 86     | 70    | 10     | 76               | 37     | 16    | 7      | 17                            | 18     | 4     | 4      | 50           | 34     | 10    | 7      |
| Subtotal  | 29,421            | 516    | 84    | 1      | 3,603            | 273    | 10    | 1      | 2,032                         | 208    | 6     | 1      | 114          | 52     | 0     | 0      |
| Statewide <sup>c</sup>  | 77,954            | 944    | 80    | 1      | 13,846           | 696    | 14    | 1      | 4,987                         | 471    | 5     | 0      | 287          | 115    | 0     | 0      |

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Licenses for the unlimited quota hunt were valid only on private lands in Management Unit ZZ in southern Michigan (Figure 1).

<sup>c</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one unit for the unlimited quota hunts.

Table 5. How hunters rated their hunting experience during the spring 2007 Michigan turkey hunting season.

| Management unit   | Satisfaction level (% of hunters) <sup>a</sup> |           |      |      |      |           |
|---|--|-----------|------|------|------|-----------|
|   | Excellent                                      | Very good | Good | Fair | Poor | No answer |
| Hunt periods with quotas (General limited quota hunt periods)                   |  |           |      |      |      |           |
| A   | 22   | 18        | 30   | 18   | 11   | 1         |
| AA  | 11   | 7         | 24   | 26   | 29   | 3         |
| B   | 13   | 18        | 29   | 18   | 20   | 2         |
| E   | 16   | 18        | 27   | 18   | 16   | 5         |
| F   | 12   | 16        | 29   | 20   | 21   | 2         |
| J   | 13   | 20        | 28   | 19   | 18   | 3         |
| K   | 20   | 18        | 25   | 21   | 12   | 4         |
| M   | 13   | 20        | 30   | 22   | 15   | 0         |
| ZA  | 14   | 21        | 35   | 15   | 13   | 2         |
| ZB  | 18   | 18        | 24   | 24   | 15   | 1         |
| ZC  | 17   | 17        | 26   | 26   | 12   | 2         |
| ZD  | 13   | 8         | 32   | 39   | 8    | 0         |
| ZE  | 16   | 19        | 32   | 22   | 8    | 3         |
| ZF  | 15   | 22        | 27   | 24   | 9    | 4         |
| Mean  | 15   | 19        | 28   | 21   | 14   | 3         |
| Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2007) |  |           |      |      |      |           |
| ZA  | 22   | 25        | 28   | 15   | 7    | 2         |
| ZB  | 22   | 23        | 24   | 20   | 9    | 2         |
| ZC  | 26   | 23        | 27   | 16   | 5    | 3         |
| ZD  | 8  | 25        | 29   | 12   | 27   | 0         |
| ZE  | 24   | 24        | 26   | 16   | 8    | 2         |
| ZF  | 22   | 24        | 26   | 17   | 8    | 2         |
| Unknown   | 15   | 19        | 29   | 15   | 16   | 6         |
| Mean  | 23   | 24        | 27   | 16   | 8    | 2         |

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 5 (continued). How hunters rated their hunting experience during the spring 2007 Michigan turkey hunting season.

| Management unit   | Satisfaction level (% of hunters) <sup>a</sup> |           |      |      |      | No answer |
|---|--|-----------|------|------|------|-----------|
|   | Excellent                                      | Very good | Good | Fair | Poor |           |
| Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2007) |  |           |      |      |      |           |
| A   | 9  | 11        | 29   | 34   | 13   | 4         |
| AA  | 14   | 13        | 23   | 16   | 34   | 0         |
| B   | 6  | 18        | 17   | 27   | 31   | 0         |
| E   | 14   | 17        | 25   | 24   | 17   | 2         |
| F   | 8  | 13        | 23   | 22   | 31   | 3         |
| J   | 13   | 15        | 23   | 27   | 21   | 1         |
| K   | 14   | 19        | 27   | 22   | 15   | 2         |
| M   | 17   | 17        | 29   | 25   | 11   | 1         |
| ZA  | 16   | 20        | 29   | 20   | 12   | 2         |
| ZB  | 17   | 21        | 29   | 18   | 12   | 3         |
| ZC  | 21   | 22        | 23   | 22   | 10   | 3         |
| ZD  | 43   | 15        | 7    | 14   | 13   | 7         |
| ZE  | 20   | 23        | 28   | 17   | 10   | 2         |
| ZF  | 19   | 20        | 29   | 18   | 12   | 2         |
| Unknown   | 8  | 4         | 18   | 23   | 44   | 3         |
| Mean  | 16   | 19        | 27   | 20   | 15   | 2         |
| Statewide <sup>b</sup>  | 18   | 20        | 27   | 19   | 13   | 2         |

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Statewide mean satisfaction levels (all hunts and periods).



Table 6. Estimated amount of hunter interference experienced by turkey hunters during the spring 2007 Michigan turkey hunting season.

| Management unit   | Interference level (% of hunters) <sup>a</sup> |       |                 |               |           |
|---|--|-------|-----------------|---------------|-----------|
|   | None   | Minor | Some irritation | Major problem | No answer |
| Hunt periods with quotas (General limited quota hunt periods)                   |  |       |                 |               |           |
| A   | 62   | 25    | 7               | 2             | 3         |
| AA  | 66   | 20    | 9               | 3             | 2         |
| B   | 72   | 17    | 8               | 1             | 2         |
| E   | 72   | 18    | 6               | 2             | 3         |
| F   | 68   | 21    | 8               | 2             | 2         |
| J   | 73   | 15    | 8               | 3             | 2         |
| K   | 58   | 29    | 8               | 1             | 4         |
| M   | 62   | 28    | 8               | 2             | 1         |
| ZA  | 64   | 23    | 6               | 5             | 2         |
| ZB  | 68   | 21    | 10              | 1             | 1         |
| ZC  | 62   | 20    | 14              | 3             | 2         |
| ZD  | 16   | 45    | 16              | 23            | 0         |
| ZE  | 53   | 30    | 13              | 3             | 1         |
| ZF  | 51   | 26    | 15              | 4             | 4         |
| Mean  | 62   | 24    | 9               | 2             | 2         |
| Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2007) |  |       |                 |               |           |
| ZA  | 68   | 22    | 7               | 2             | 2         |
| ZB  | 67   | 20    | 9               | 2             | 2         |
| ZC  | 69   | 20    | 8               | 2             | 2         |
| ZD  | 68   | 20    | 8               | 4             | 0         |
| ZE  | 67   | 20    | 10              | 2             | 1         |
| ZF  | 64   | 24    | 9               | 2             | 1         |
| Unknown   | 68   | 19    | 5               | 3             | 6         |
| Mean  | 67   | 21    | 8               | 2             | 2         |

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 6 (continued). Estimated amount of hunter interference experienced by turkey hunters during the spring 2007 Michigan turkey hunting season.

| Manage-<br>ment unit  | Interference level (% of hunters) <sup>a</sup> |       |                    |                  |           |
|---|--|-------|--------------------|------------------|-----------|
|   | None   | Minor | Some<br>irritation | Major<br>problem | No answer |
| Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2007) |  |       |                    |                  |           |
| A   | 75   | 19    | 4                  | 0                | 2         |
| AA  | 81   | 18    | 1                  | 0                | 0         |
| B   | 75   | 15    | 6                  | 4                | 0         |
| E   | 73   | 16    | 6                  | 1                | 3         |
| F   | 70   | 18    | 6                  | 3                | 3         |
| J   | 73   | 21    | 4                  | 1                | 1         |
| K   | 63   | 25    | 8                  | 3                | 2         |
| M   | 78   | 18    | 3                  | 0                | 1         |
| ZA  | 70   | 20    | 7                  | 1                | 2         |
| ZB  | 69   | 21    | 5                  | 3                | 3         |
| ZC  | 67   | 22    | 9                  | 1                | 1         |
| ZD  | 73   | 20    | 0                  | 0                | 7         |
| ZE  | 75   | 16    | 6                  | 1                | 1         |
| ZF  | 66   | 21    | 9                  | 2                | 3         |
| Unknown   | 64   | 25    | 5                  | 2                | 4         |
| Mean  | 69   | 20    | 7                  | 2                | 2         |
| Statewide <sup>b</sup>  | 66   | 22    | 8                  | 2                | 2         |

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Statewide mean interference levels (all hunts and periods).

Table 7. Estimated number of hunting efforts, hunters, hunting success, noninterfered hunters, and hunter rating of the 2007 spring turkey hunting season, by hunt periods.

| Variable                               | Hunt periods beginning |        |          |        |          |        |          |        | All periods <sup>a</sup> |        |
|--|------------------------|--------|----------|--------|----------|--------|----------|--------|--------------------------|--------|
|  | April 23               |        | April 30 |        | May 7    |        | May 14   |        |                          |        |
|  | Estimate               | 95% CL | Estimate | 95% CL | Estimate | 95% CL | Estimate | 95% CL | Estimate                 | 95% CL |
| Hunting efforts (days)                 | 187,929                | 4,794  | 31,800   | 2,405  | 191,428  | 5,212  | 6,482    | 1,269  | 417,639                  | 6,971  |
| Number of hunters                      | 48,025                 | 731    | 9,318    | 587    | 38,309   | 598    | 1,421    | 211    | 97,074                   | 778    |
| Successful hunters (n)                 | 20,893                 | 686    | 3,050    | 401    | 14,623   | 535    | 602      | 151    | 39,168                   | 921    |
| Successful hunters (%)                 | 44                     | 1      | 33       | 4      | 38       | 1      | 42       | 8      | 40                       | 1      |
| Noninterfered hunters (n) <sup>b</sup> | 41,974                 | 759    | 8,037    | 559    | 34,109   | 614    | 1,208    | 196    | 85,329                   | 908    |
| Noninterfered hunters (%) <sup>b</sup> | 87                     | 1      | 86       | 3      | 89       | 1      | 85       | 6      | 88                       | 1      |
| Favorable rating (n) <sup>c</sup>      | 33,668                 | 764    | 5,393    | 502    | 23,940   | 613    | 974      | 182    | 63,976                   | 993    |
| Favorable rating (%) <sup>c</sup>      | 70                     | 1      | 58       | 4      | 62       | 1      | 69       | 7      | 66                       | 1      |

<sup>a</sup>Row totals may not equal totals for all periods because of rounding errors.

<sup>b</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

<sup>c</sup>Hunters rating their hunting experience as excellent, very good, or good.

Table 8. Comparison of the estimated number of hunters, hunting effort, and harvest between 2006 and 2007 Michigan spring turkey hunting seasons, summarized by regions.

| Region <sup>a</sup> | Hunters (No.) <sup>b</sup> |        |        |        |            | Hunting efforts (days) |        |         |        |            | Harvest (No.) |        |        |        |            |
|---------------------|----------------------------|--------|--------|--------|------------|------------------------|--------|---------|--------|------------|---------------|--------|--------|--------|------------|
|                     | 2006                       |        | 2007   |        | Change (%) | 2006                   |        | 2007    |        | Change (%) | 2006          |        | 2007   |        | Change (%) |
|                     | Total                      | 95% CL | Total  | 95% CL |            | Total                  | 95% CL | Total   | 95% CL |            | Total         | 95% CL | Total  | 95% CL |            |
| UP                  | 4,074                      | 192    | 4,953  | 336    | 22*        | 17,858                 | 1,673  | 24,128  | 3,066  | 35*        | 1,660         | 152    | 2,009  | 347    | 21         |
| NLP                 | 35,457                     | 699    | 31,192 | 591    | -12*       | 162,031                | 5,604  | 126,018 | 3,969  | -22*       | 11,681        | 611    | 10,857 | 566    | -7         |
| SLP                 | 62,058                     | 702    | 59,607 | 694    | -4*        | 300,866                | 6,268  | 256,274 | 5,349  | -15*       | 25,352        | 608    | 25,915 | 665    | 2          |
| Unknown             | 2,187                      | 250    | 2,637  | 305    |            | 9,853                  | 1,610  | 11,218  | 2,001  |            | 249           | 74     | 387    | 105    |            |
| Total               | 101,907                    | 729    | 97,074 | 778    | -5*        | 490,608                | 7,833  | 417,639 | 6,971  | -15*       | 38,942        | 846    | 39,168 | 921    | 1          |

<sup>a</sup>Regions included the Upper Peninsula (UP), the northern Lower Peninsula north of Management Unit ZZ (NLP), and Management Unit ZZ in the southern Lower Peninsula (SLP).

<sup>b</sup>Number of hunters did not add up to statewide total because hunters can hunt in more than one unit for the unlimited quota hunt.

\*P<0.005.

Table 9. Comparison of estimated hunter success, hunter satisfaction, and hunt interference between 2006 and 2007 Michigan spring turkey hunting season, summarized by regions.

| Region <sup>a</sup> | Hunter success |        |      |        |                | Hunter satisfaction <sup>b</sup> |        |      |        |                | Noninterfered hunters <sup>c</sup> |        |      |        |                |
|---------------------|----------------|--------|------|--------|----------------|----------------------------------|--------|------|--------|----------------|------------------------------------|--------|------|--------|----------------|
|                     | 2006           |        | 2007 |        | Difference (%) | 2006                             |        | 2007 |        | Difference (%) | 2006                               |        | 2007 |        | Difference (%) |
|                     | %              | 95% CL | %    | 95% CL |                | %                                | 95% CL | %    | 95% CL |                | %                                  | 95% CL | %    | 95% CL |                |
| UP                  | 41             | 3      | 41   | 6      | 0              | 62                               | 3      | 63   | 6      | 0              | 91                                 | 2      | 90   | 4      | -2             |
| NLP                 | 33             | 2      | 35   | 2      | 2              | 56                               | 2      | 59   | 2      | 3              | 89                                 | 1      | 88   | 1      | 0              |
| SLP                 | 41             | 1      | 43   | 1      | 3*             | 69                               | 1      | 70   | 1      | 2*             | 88                                 | 1      | 87   | 1      | 0              |
| Total               | 38             | 1      | 40   | 1      | 2*             | 64                               | 1      | 66   | 1      | 2*             | 88                                 | 1      | 88   | 1      | 0              |

<sup>a</sup>Regions included the Upper Peninsula (UP), the northern Lower Peninsula north of Management Unit ZZ (NLP), and Management Unit ZZ in the southern Lower Peninsula (SLP).

<sup>b</sup>Hunters rating their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

\*P<0.005.

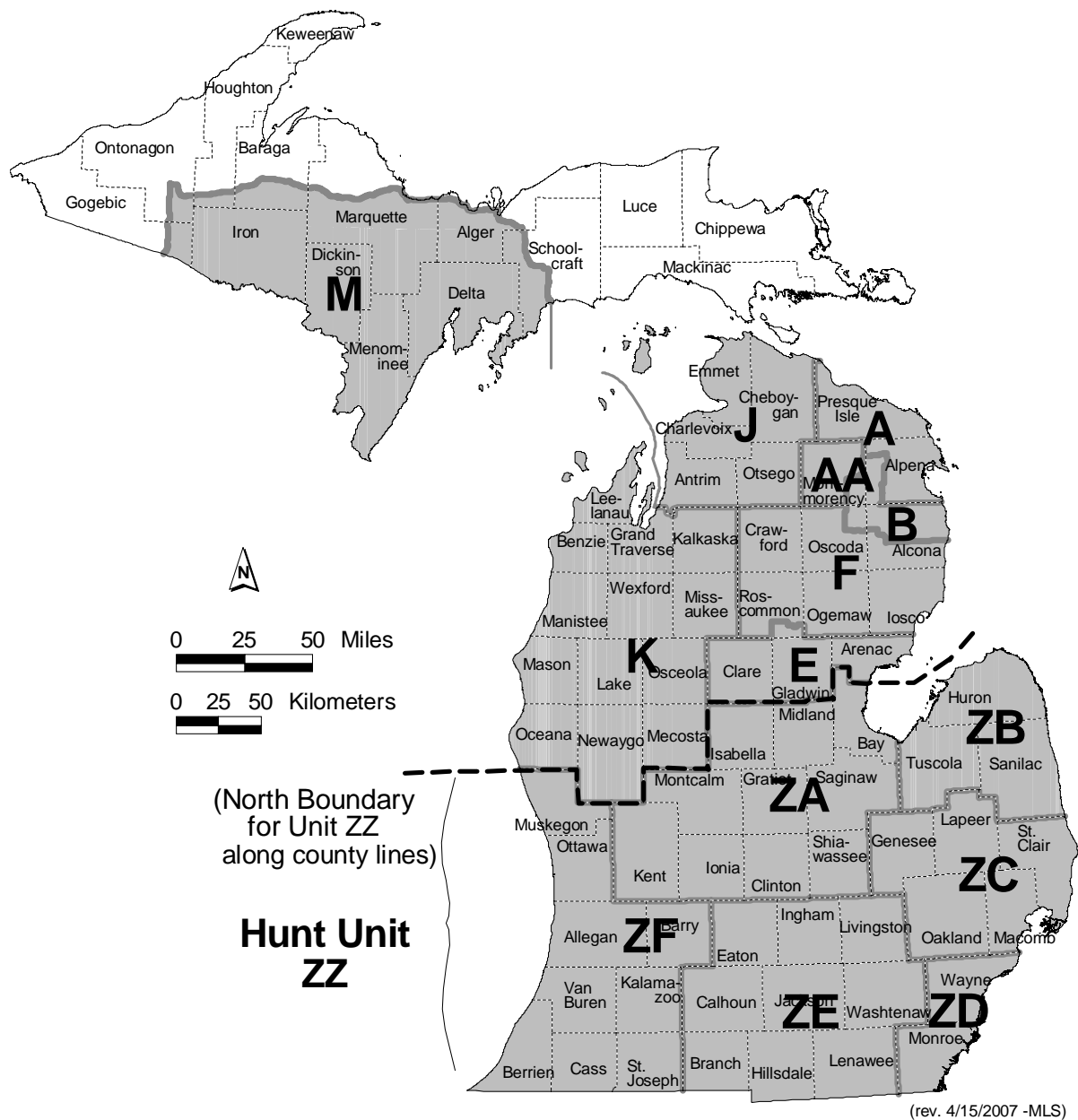
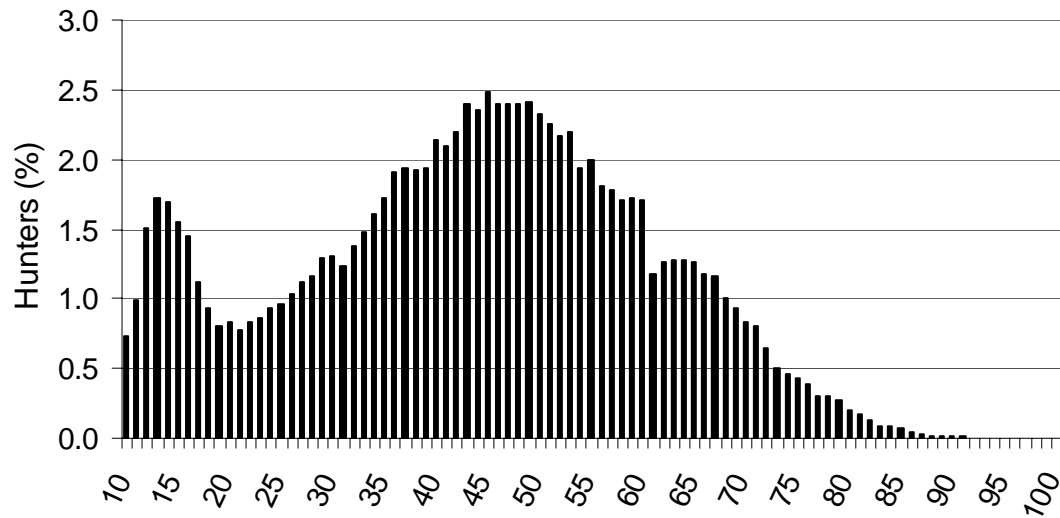


Figure 1. Management units in Michigan open to spring turkey hunting in 2007.



Hunter's Age on April 23, 2007

Figure 2. Age of people that purchased a turkey hunting license in Michigan for the 2007 spring hunting season ( $\bar{x}$  = 43 years). Licenses were purchased by 121,491 people.

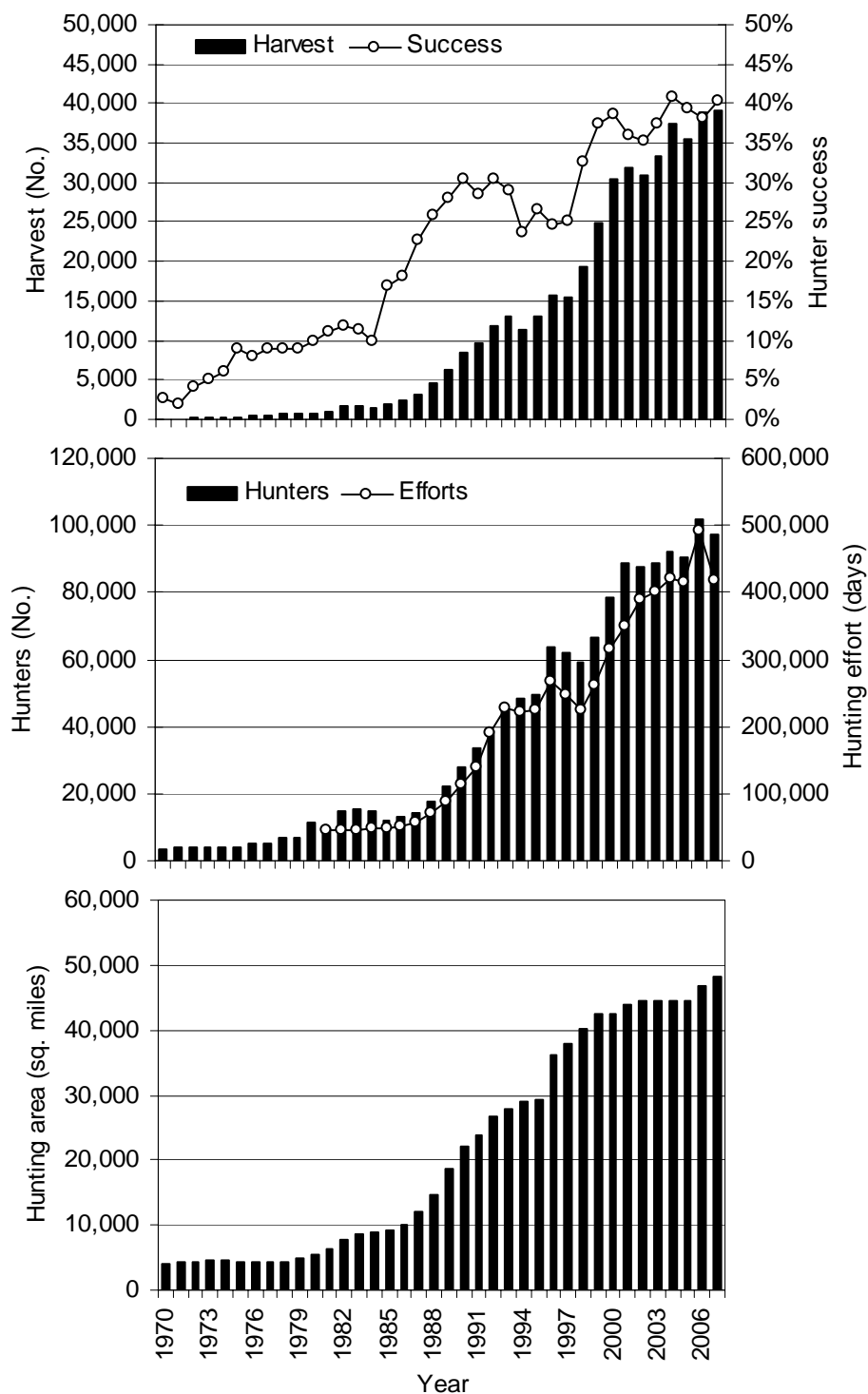


Figure 3. Estimated number of hunters, harvest, hunting efforts, hunter success, and area open to hunting during the Michigan spring turkey hunting season, 1970-2007. Estimates of hunting effort generally were not available before 1981.

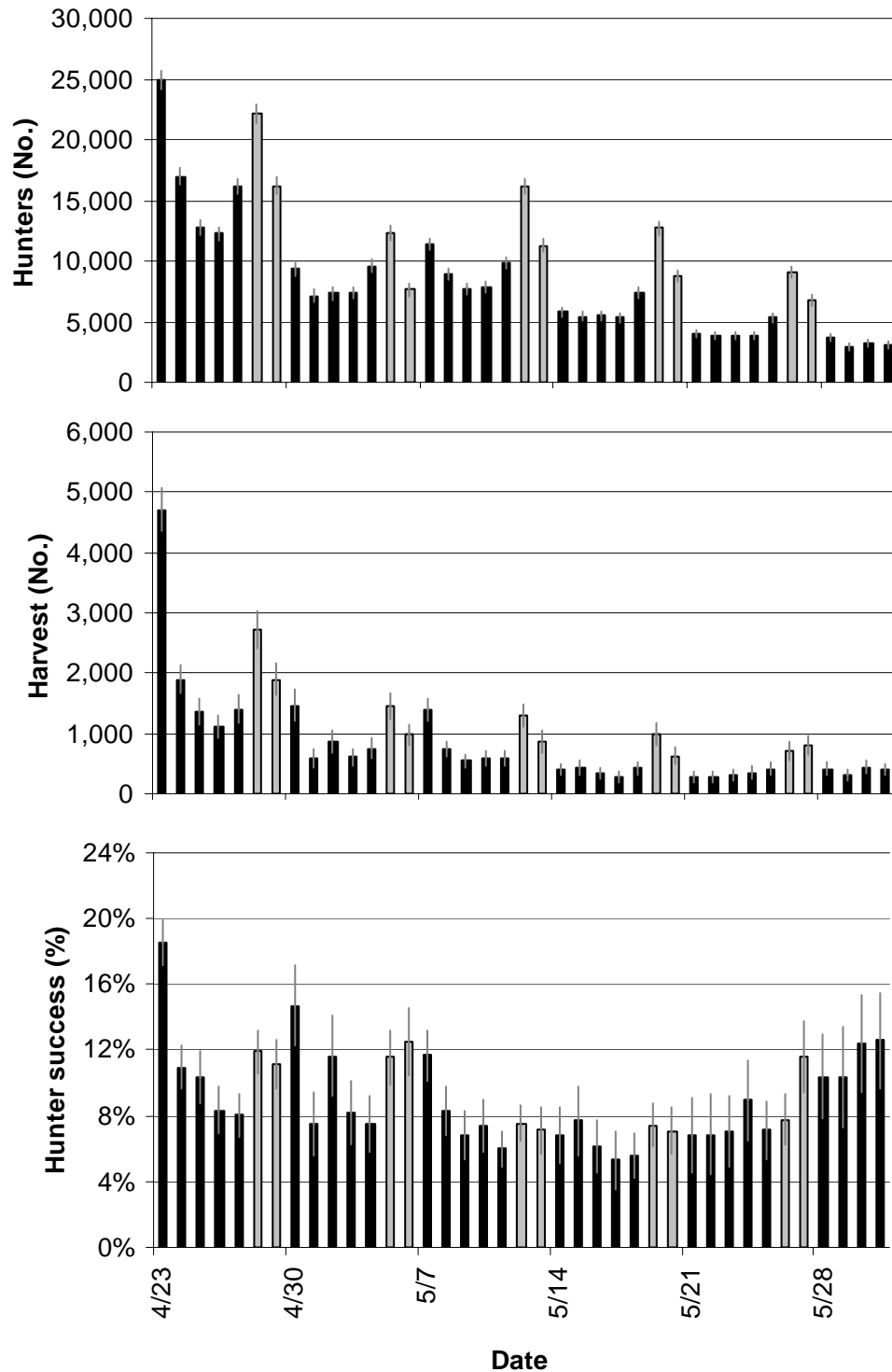


Figure 4. Estimated number of hunters, harvest, and hunter success by date during the 2007 Michigan spring turkey hunting season (includes all hunts). An additional  $3,134 \pm 286$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.



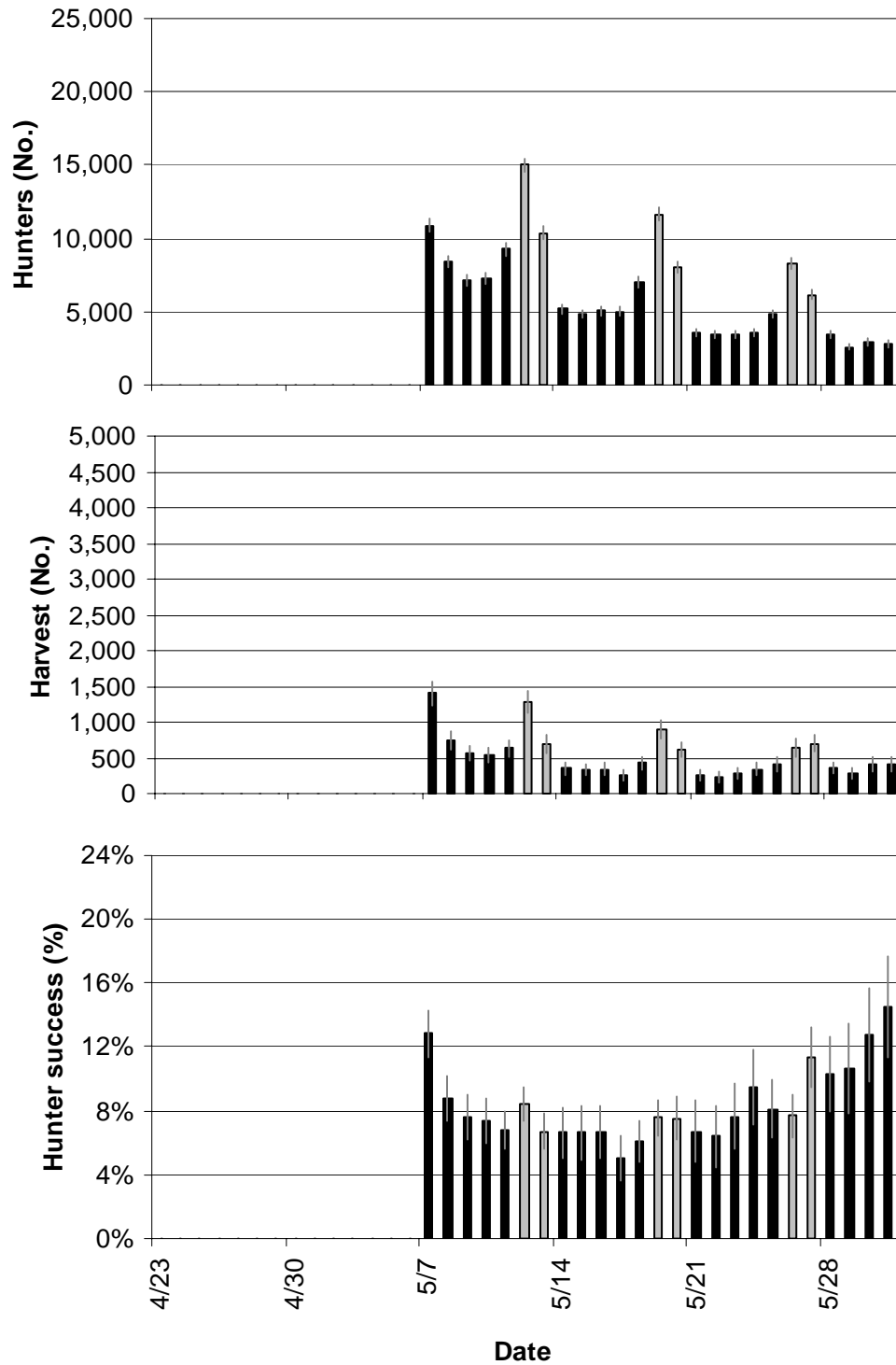


Figure 5. Estimated number of hunters, harvest, and hunter success by date during Hunt 234 of the 2007 Michigan spring turkey hunting season (May 1-31). An additional  $1,474 \pm 181$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

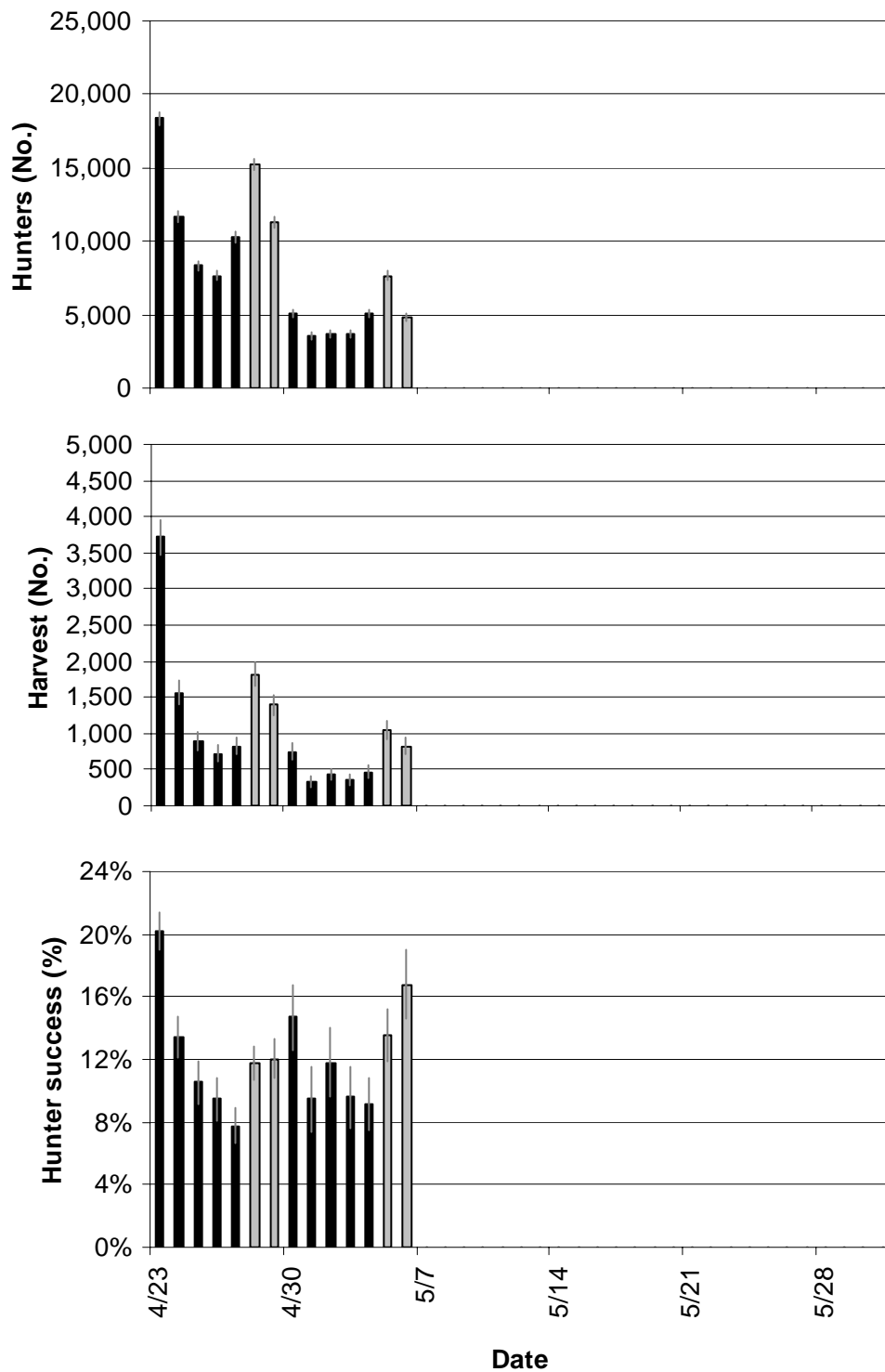


Figure 6. Estimated number of hunters, harvest, and hunter success by date during Hunt 301 of the 2007 Michigan spring turkey hunting season (April 17-30). An additional  $1,353 \pm 153$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

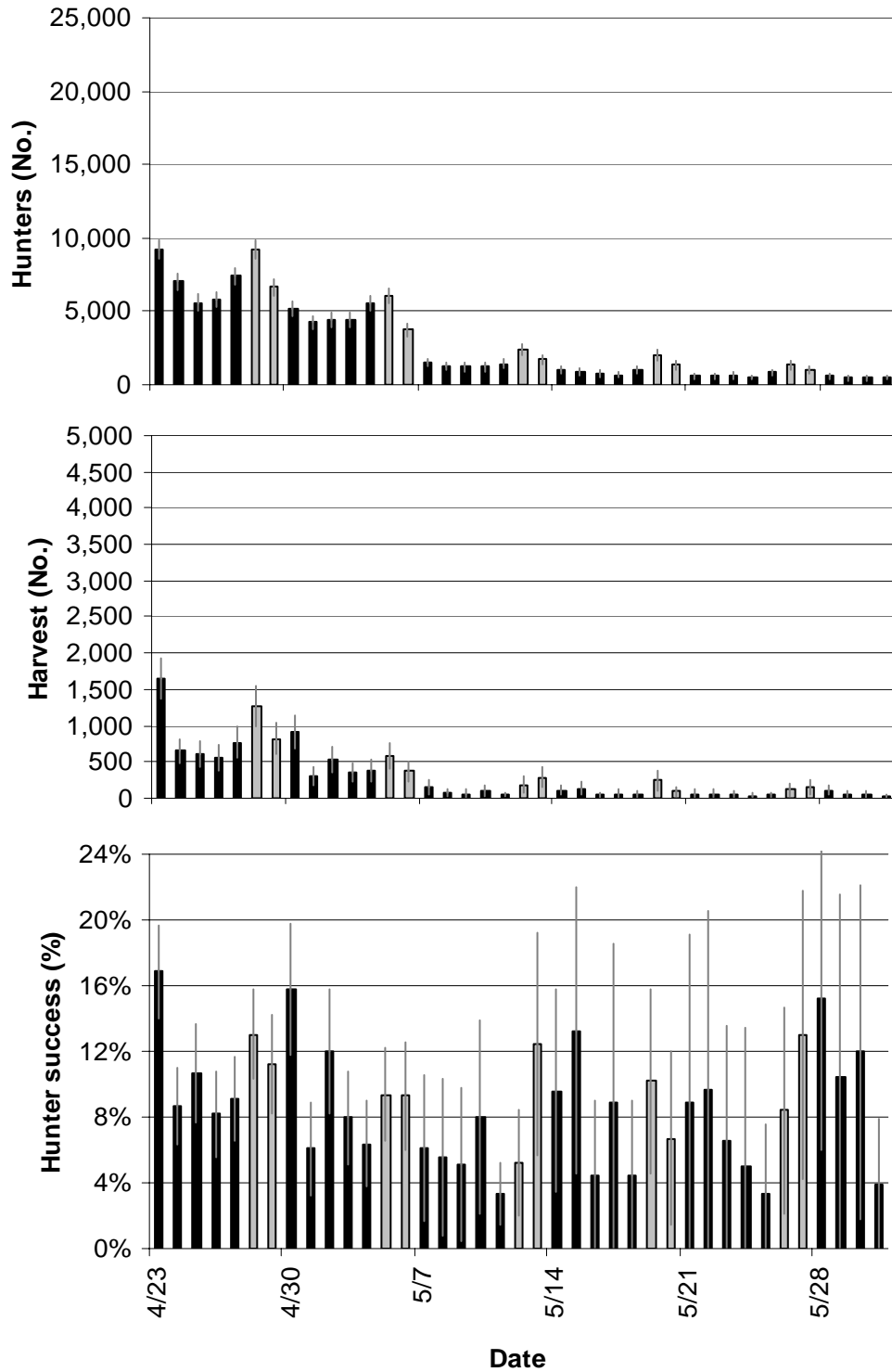


Figure 7. Estimated number of hunters, harvest, and hunter success by date during all hunts except hunts 234 and 301 of the 2007 Michigan spring turkey hunting season. An additional  $388 \pm 163$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

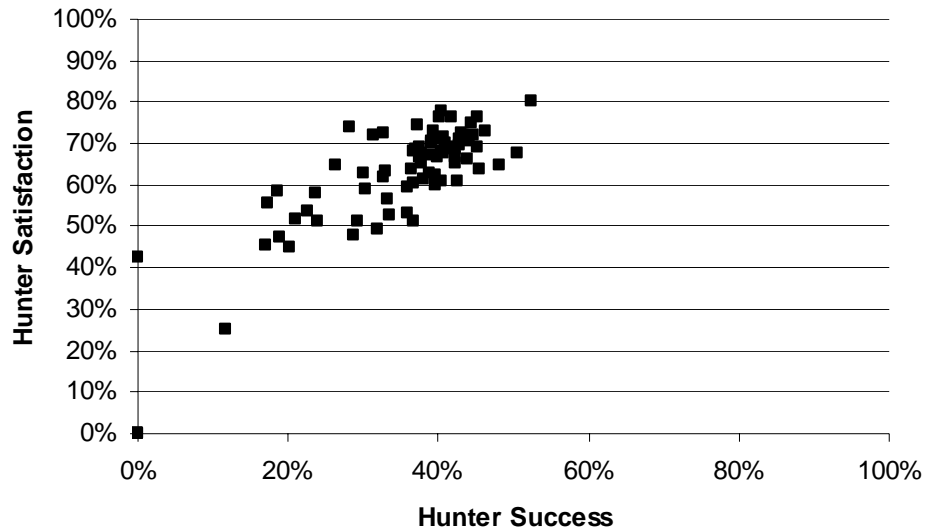


Figure 8. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter success for each of 79 counties in Michigan during the 2007 spring turkey hunting season.

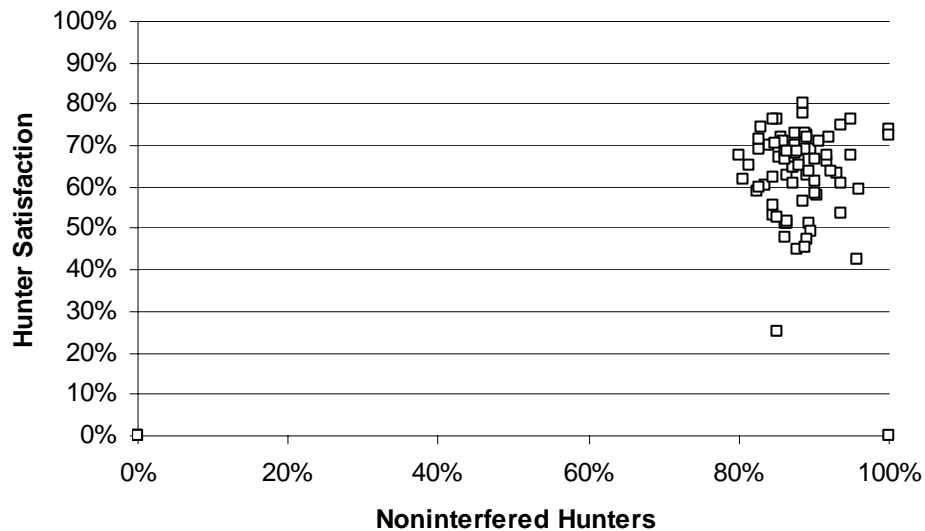


Figure 9. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter interference for each of 79 counties in Michigan during the 2007 spring turkey hunting season. Noninterfered hunters were the proportion of hunters that indicated that they experienced no or only minor interference from other hunters.